§ 2292.4. Specifications forE-85 Fuel Ethanol.

The following standards apply to E-85 fuel ethanol
(The identified test methods are incorporated herein by reference):

Specifications for E-85 Fuel Ethanol

Specification	*Value*	*Test Method*
Ethanol	92 vol. % (min.)	ASTM D 3545-90[a]
Other alcohols and ethers	2 vol. % (max.)	ASTM D 4815-89
Hydrocarbons, + aliphatic ethers[b]	15-21 vol. %	ASTM D 4815-89, and then subtract concentration of alcohols, ethers and water from 100 to obtain percent hydrocarbons
Vapor pressure, dry[c]		Methods contained in Title 13, Section 2262 are preferred. ASTM D 4953-90 is an alternative method, however, in case of dispute about the vapor pressure, the value determined by the methods contained in Title 13, Section 2262 shall prevail over the value calculated by ASTM D 4953-90, including its precision statement.
Specification	*Value*	*Test Method*
Acidity as acetic acid	0.007 mass % (max.)	ASTM D 1613-85
Total chlorine as chloride	0.0004 mass % (max.)	ASTM D 3120-87 modified for the det. of organic chlorides, and ASTM D 2988-86
Copper	0.07 mg/1 (max.)	ASTM D 1688-90 as modified in ASTM D 4806-88
Lead	2 mg/1 (max.)[d]	ASTM D 3229-88
Phosphorus	0.2 mg/1 (max.)[e]	ASTM D 3231-89
Sulfur	0.004 mass % (max.)	ASTM D 2622-87
Specification	*Value*	*Test Method*
Gum, heptane washed	5 mg/100 ml (max.)	ASTM D 381-86
Total particulates	5 mg/1 (max.)	ASTM D 2276-89, modified to replace cellulose acetate filter with a 0.8 micron pore size membrane filter
Water	1.25 mass % (max.)	ASTM E 203-75
Appearance	Free of turbidity, suspended matter and sediment	Visually determined at 25°C by Proc. A of ASTM D 4176-86

[a] The denaturant must meet the ASTM D 4806-88 specification for denatured fuel ethanol, except the denaturant cannot be rubber hydrocarbon solvent. The final blend specifications for E-85 take precedence over the ASTM D 4806-88 specifications.

[b] Hydrocarbon fraction shall have a final maximum boiling point of 225 degrees C by ASTM method D 86-90, oxidation stability of 240 minutes by ASTM test method D 525-88 and No. 1 maximum copper strip corrosion by ASTM method D 130-88. Ethers must be aliphatic. No manganese added. Adjustment of RVP must be performed using common blending components from the gasoline stream. Starting 4/1/96, the hydrocarbon fraction must also meet specification for benzene, olefin content, aromatic hydrocarbon content, maximum T90 and maximum T50 found in California Code of Regulations, Title 13 sections 2262.3, 2262.4, 2262.7 and 2262.6 (T90 & T50), respectively.

[c] RVP range of 6.5 to 8.7 for those geographical areas and times indicated for A, A/B, B/A and B volatility class fuels in Table 2 of ASTM D 4814-91b. RVP range of 7.3 to 9.4 for those geographical areas and times indicated for B/C, C/B, C, C/D and D/C volatility fuels. RVP range of 8.7 to 10.2 for those geographical areas and times indicated for D, D/E, E/D and E volatility fuels. Geographical areas referenced in this note shall be adjusted to reflect the air basin boundaries set forth in Title 17, California Code of Regulations, section 60100 through 60113.

[d] No added lead.

[e] No added phosphorus.

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018 and 43101, *Health and Safety Code; and Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal. 3d 411, 121 Cal. Rptr. 249 (1975). Reference: Sections 39000, 39001, 39002, 39003, 39010, 39500, 40000, 43000, 43016, 43018 and 43101, Health and Safety Code: *and Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal. 3d 411, 121 Cal. Rptr. 249 (1975).

REFERENCE